

Applic. No.: 10/804,148

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Amendments to the Specification:

Please replace the paragraph on page 1, line 1 to page 2, line 15 with the following paragraph:

For angle measuring systems or rotary encoders the reference impulse for the travel of the reference has been taken for each revolution and used to determine the initial absolute value which can also be checked and corrected. Other measures must be taken in the case of multiturn encoders, however, if the revolutions themselves i.e. multiples of  $360^\circ = 2$  need to be recorded. Either a separate drive is integrated into the measuring system to record its position using position sensors for recording all of the revolutions made separately, or a battery is used that allows a separate integrated rotational measuring system with energy saving sensors and counting logic to be supplied with power and permanently stores information during mains failure. The drives are bulky, limit durability as well as the rotational positions that can be recorded and are also costly due to the additional sensor technology. The separate rotational measuring system, equipped mainly with permanent magnets and counting logic by means of magnetically conductible segment disks as well as Reed contacts, is also bulky and has limited durability due to its mechanical contacts as well as critical battery life in places prone to

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excessive temperature where long life industrial encoders are integrated e.g. electric motors. For angle measuring systems there have also been repeated attempts to avoid using a drive or battery by designing devices using permanent magnets and coils in such a way that the switching energy resulting from the changing magnetic field was used to count the rotational position and store the counter reading. ~~More detailed information about this can be found for example in patent specification no. (to be supplied).~~ But these measuring devices are also bulky and have limited durability due to their use of special electronic Flash-memory components which also means that they are not very widespread.